

REMARKS

Present Status of Claims

- Original claims **1-64** are pending.
- Claims **29-41** and **43-64** were withdrawn from consideration as being drawn to non-elected embodiments.
- Claims **1-28** have been rejected.
- Claims **3, 20, 21** and **42** are objected to.

Summary of Amendments to the Claims

In this paper:

Claims **1, 3, 20, 21, 29, 34** and **42** have been amended.

Claims **2, 8, 10, 12, 19, 24** and **43-64** have been cancelled.

Claim Objections

Claim **3** was objected to because of an informality. Applicants have amended claim **3** by replacing "~~the at least one electrical conductor~~" with -- said first electrical conductor --, as suggested by the Office.

Claims **20** and **23** were objected to because of a missing symbol for "*degrees*" *Centigrade*. Applicants have inserted the proper symbol, as suggested by the Office.

Claim **42** was objected to because of an improper antecedent reference. Applicants have amended claim **42** to have a proper antecedent basis for "*the first microelectronic device*", as suggested by the Office.

Allowable Claim

Claim **42** was objected to as being dependent upon a rejected base claim.

In response, applicants have rewritten claim **42** in independent form, including all of the elements and limitations recited in the rejected base claim [1], plus any intervening claims [23].

Accordingly, the objections to claim **42** has been overcome, and amended claim **42** is now in condition for allowance.

35 USC § 102 Rejections

Claim 1

The Office rejected independent claim 1 under 35 USC § 102(e) as being anticipated by Stern et al (6,147,389).

The Office asserts that *Stern* teaches “no separate layer of adhesive material is disposed in-between the window 302 and the plate 701”. Applicants respectfully **traverse**.

Stern states “window standoff frame **701** supports window **302**.” See *Stern*, Col. 6, line 11.

Nowhere in *Stern* is there a teaching or suggestion that window 302 is bonded **directly** to a supporting frame (e.g., plate 701) **without a separate layer of adhesive material** disposed in-between the window and plate, as is recited by applicant's claim 1.

Instead, *Stern* teaches using adhesives, such as epoxy adhesive, elastomeric adhesive, resin adhesive, cyanoacrylate adhesive, and thermoplastic adhesive to bond together various parts of the image sensor assembly, as is commonly done in the electronics packaging industry. See *Stern*, Col. 4, lines 25-27.

Accordingly, applicant's submit that the Office has failed to make a *prima facie* case of anticipation with respect to claim 1.

Amendments to Claim 1

Even though Applicants believe that the Office has failed to make a *prima facie* case of anticipation with respect to original claim 1, applicants have amended claim 1 to better define and clarify this embodiment of the present invention, and to place the claims in a better condition for allowance.

Applicants have amended claim 1 by limiting the electrically insulating plate to be “**multilayered**”; and by defining the geometrical relationship between the outer edge of the integral window and the multilayered plate to be limited to an **encased joint**, a **lip recessed** inside of the plate, a **self-locking** geometry, or a geometry that **substantially fills** the aperture.

Stern et al. does not teach any of these additional elements or limitations. Consequently, a *prima facie* case of anticipation by *Stern et al.* cannot be made with respect to amended claim 1.

Accordingly, amended claim 1 is now in condition for allowance.

Claims 3, 4, 8, 23, 25, and 27

Claims 3, 4, 8, 23, 25, and 27 depend from claim 1. As presented above, amended claim 1 is now in condition for allowance. Therefore, claims 3, 4, 8, 23, 25, and 27 are also now in condition for allowance.

35 USC § 103 Rejections

Claims 13, 26 and 28

The Office rejected dependent claims 13, 26, and 28 under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Glenn (5,867,368).

Claims 13, 26, and 28 depend from claim 1. As presented above, amended claim 1 is now in condition for allowance. Therefore, claims 13, 26, and 28 are also now in condition for allowance.

Claims 14 and 15

The Office rejected dependent claims 14 and 15 under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Billingsley (4,421,985).

Claims 14 and 15 depend from claim 1. As presented above, amended claim 1 is now in condition for allowance. Therefore, claims 14 and 15 are also now in condition for allowance.

Claims 2, 19-22, and 24

The Office rejected dependent claims 2, 19-22, and 24 under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Wetzel (6,011,294).

Claims 2, 19-22, and 24 depend from claim 1. As presented above, amended claim 1 is now in condition for allowance. Therefore, claims 2, 19-22, and 24 are also now in condition for allowance.

Additionally, *Wetzel teaches away from* using multilayered ceramic structures due to their high costs, in favor of using lower cost moldable plastic materials, such as liquid crystal polymers (see *Wetzel*, Col. 1, line 24-24 and Col. 2, lines 21-23).

Claim 18

The Office rejected dependent claim **18** under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Zmek (5,233,174).

Claim **18** depends from claim **1**. As presented above, amended claim **1** is now in condition for allowance. Therefore, claim **18** is also now in condition for allowance.

Claims 5-7

The Office rejected dependent claims **5-7** under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Glenn (6,274,927).

Claims **5-7** depend from claim **1**. As presented above, amended claim **1** is now in condition for allowance. Therefore, claims **5-7** are also now in condition for allowance.

Claims 9, 10 and 12

The Office rejected dependent claims **9, 10** and **12** under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Nagano (5,357,056).

Claims **9, 10** and **12** depend from claim **1**. As presented above, amended claim **1** is now in condition for allowance. Therefore, claims **9, 10** and **12** are also now in condition for allowance.

Additionally, applicants respectfully traverse the Office's assertion that **Nagano does not teach** a window geometry that substantially fills the aperture (as is shown in applicant's Fig. 4A, 10C, 10D, 11, 12A, 12B, and 13). The window geometry shown in Nagano's Fig. 1B fills less than 50% of the aperture, and, hence, **does not substantially fill** the aperture.

Claims 16-17

The Office rejected dependent claims **16-17** under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389).

Claims **16-17** depend from claim **1**. As presented above, amended claim **1** is now in condition for allowance. Therefore, claims **16-17** are also now in condition for allowance.

Claim 11

The Office rejected dependent claim **11** under 35 USC § 103(a) as being unpatentable over Stern et al (6,147,389) in view of Nagano (5,357,056), and further in view of Glenn (6,117,193).

Claim **11** depends from claim **1**. As presented above, amended claim **1** is now in condition for allowance. Therefore, claim **11** is also now in condition for allowance.

Withdrawn Claims

Claims 29-41

The Office withdrew claims **29-41** as being directed to a non-elected embodiment.

Applicants submit that amended claim **1** is a **generic** claim that covers the species described in claims **29-41**. Applicants request that claims **29-41** be **rejoined** and examined.

Since amended claim **1** is now in condition for allowance and is a generic claim, then the dependent species claims **29-41** are also now in condition for allowance.

Amendments to claims 29 and 34

Minor amendments were made to claims **29** and **34**.

In claim **29**, an inadvertent error was corrected by changing the dependence of claim **29** to **23** (instead of from **30**).

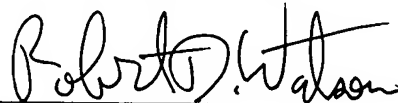
In claim **34**, the word "encapsulant" was inadvertently left out by mistake. This has been corrected.

Conclusion

Applicants have responded to each and every objection and rejection, and urge that claims **1, 3-7, 9, 11, 13-18, 20-23, and 25-42** as presented are now in condition for allowance. No new claims have been added.

Applicants request expeditious processing to issuance.

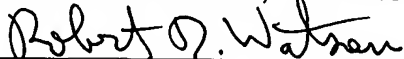
Respectfully submitted,



Robert D. Watson
Agent for Applicants
Reg. No. 45,604
Ph: (505) 845-3139
Fax: (505) 844-1418
e-mail: rdwatso@sandia.gov
Sandia National Laboratories
P.O. Box 5800 MS-0161
Albuquerque, NM 87185-0161

Certificate of Mailing under 37 CFR 1.10

I hereby certify that this correspondence was deposited with the U.S. Postal Service on
3/18/03 (date) in an envelope addressed to the Assistant
Commissioner for Patents, Box Non-Fee Amendment, Washington, D.C. 20231



Robert D. Watson